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BACKUP AND RESTORE SERVICES

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Data backup and restore is an essential part of an IT data center. Backup refers to making copies of data so that these additional copies may be used to restore the original after a loss. These additional copies called "backups" are useful in two ways; to restore a computer to an operational state following a disaster. The second is to restore small numbers of files after they have been accidentally deleted or corrupted. Backups are typically that last line of defense against data loss, and consequently the least granular and the least convenient to use.

Product Features and Descriptions

Feature	Description
Broad Support	Supports a broad range of client and file server platforms.
Remote Management	A web based client platform provides robust customer administrator capabilities to manage TSM activities.
Multitasking	Multitasking capability—multiple TSM client sessions.
Database Support	Online and offline database backup, restore and archive support.
Robust Services	Open API providing critical online backup and restore services to data-intensive applications.
Progressive Incremental Backups	Progressive Incremental backups (only changed data is backed up after the initial full) are all that is ever needed (no full backups are performed except for the first backup, unless an archive is requested by the client). This reduces network traffic, transmission time, and TSM server storage requirements.
Archives	Archiving to tape is available with user defined retention periods. Archival backups are always full backups.

State of Utah

Product Description

Data Redundancy for Disaster Recovery	Backups are replicated daily between the Salt Lake and Richfield data centers, eliminating the need to physically move tapes to offsite storage.
Point in time restores	Multiple file versions are retained for point in time restores.
Management Classes	Retention periods, number of versions, etc, are defined in flexible management classes that can be chosen to meet your specific needs.
Physically Safe	A secure, climate-controlled environment.
Monitoring	24x7 monitoring.
Reliable Power	Reliable uninterruptible power with UPS, battery, and generator backup.
GroupWise Email System Backup	The GroupWise email system has been backed up for disaster recovery as well as for E-Discovery. E-Discovery refers to the legal discovery process for electronic documents. Restoring email records from the Reload backup is a very labor and resource intensive process and will only be done at the request of the Agency Executive Director, or Agency Deputy Director. GroupWise backups are retained for three years after the Gmail migration which occurred on November 19 th 2012.
Server Environment	The servers are backed up daily. The production Informix Database backups are replicated to the Richfield Data center nightly.
Microsoft SQL Databases	Microsoft SQL databases are copied to a backup location nightly; the backup location is then backed up.
Safeguard of desk side data	At the request of the Agency, DTS will make a backup copy of the local Desktop and/or Laptop's hard drive/s and the personal space on the network of a terminated employee.

Features Not Included

Feature	Explanation
Files not backed up	Photos, music, wave, temporary files, and files that are over 2 Gig in size are not backed up unless required for the operation/management of the agency. Alternatives may be considered in these instances.
Restoring of Individual GroupWise mailboxes	With the migration to Google Email (Gmail), the GroupWise email system backed up. Files have a retention period of three years and are kept for E-Discovery requests. It is not possible to restore an individual's email. Only the full email system can be restored.
Google Email Backups	Google Email (Gmail) is not backed up. Agencies wanting backups of Gmail can subscribe to Google Message Discovery (GMD) which has a default retention period for storing email for 10 years. Email can be restored from GMD to a Gmail account. This is a service this agency has opted to employ.

State of Utah

Product Description

Local Desktop and Laptop drives are not backed up	Local desktop or laptop drives (commonly known as “C” or “D” drives) are not backed up by DTS. It is the end-users responsibility to store Department data on the network drives.
Open files are not included	If a file is open at the time a server is backed up, it cannot be backed up.
Data Resumption (business resumption) storage service	This service is available but sold separately. Data Resumption should not be confused with Data Redundancy above.
SAN Storage	Storage is not provided as a part of this product. See the product descriptions for SAN Storage and Qualified Dedicated Storage.

Rates and Billing

Feature	Description	Base Rate
Backup and Restore Services	As listed under product features and descriptions	Included in the DTS Hosting Services Storage rate

Ordering and Provisioning

There are no required orderings by UDC for backup support. All servers supported by DTS will be backed up.

When a staff member is to be terminated, regardless of reason, UDC will make a request to safeguard the data stored on the desktop and/or laptop to the UDC Help Desk. This is intended to be done on a very limited basis (termination of employment, etc).

DTS Responsibilities

1. Backups will be archived at the Salt Lake or Richfield data centers for a period of not less than three years.
2. Backup software that does not substantially affect server utilization will be used.
3. Backups are planned and performed using industry best practices.
4. Daily business resumption backups are stored on a Disk-to-Disk backup system.
5. Once a month a full archival backup will be completed for each system. This backup will be stored on tape or Disk-to-Disk and replicated to the Richfield data center.
6. Backup tapes that are removed from the backup rotation will erased per industry best practices.
7. Upon notification of the termination of an employee DTS will make a backup copy of the local desktop and/or laptop's hard drive/s and the personal space on the network. This is in conjunction with HB #118 ARCHIVES AND GRAMA REVISIONS Feb 2009, that requires by law no GRAMA data be deleted.

State of Utah

Product Description

8. DTS will maintain a plan by which desktops and laptops can be safely backed up, the data stored, documented and reported when requested.
9. Upon completion of the backup the agency will be given the files on some type of media (DVD, CD, etc).

Agency Responsibilities

1. Notify DTS within two working days of the termination of an employee and make all desktops and laptops available for data backup procedures. This process may be initiated and coordinated by DHRM.
2. Protect the employees desktop and/or laptops from the time of termination to their delivery to DTS.
3. Supply the media needed to DTS for the backing up and storing of desktop and laptop data.

DTS Service Levels and Metrics

State of Utah

Product Description

In an effort to improve service to our customer agencies, DTS will measure and report on the following enterprise metric goals:

- Application Availability
- Resolution Time
- Initial Response
- First Contact Resolution
- Customer Satisfaction Surveys

Application Availability:

Application availability measures DTS' efforts to ensure agency key business applications meet the percent of availability goals identified in the agency Service Level Agreements (SLA). DTS will determine application availability based upon the collective measurement of the configuration items (both hardware and software) which are determinant to supporting the agency business services applications. These metrics will be reported each month by agency with a cumulative report showing DTS' efforts over several months and posted to the DTS Metrics web page at <http://dts.utah.gov/metrics/index.php>.

Metric Description	Target
O-Track	99.90%
M-Track	99.90%
NORM / CACTUS	99.90%
UDC COTS	99.50%
UDOCA	99.50%

Times exclude those tickets in a "Pending" status waiting a known bug fix.

Note: Application Availability metrics for NORM/CACTUS, UDC COTS, and UDOCA are based on normal business hours (Monday – Friday 8 am – 5 pm).

For O-Track and M-Track the availability metrics are based on a 24 hour / day x 7 days / week schedule. However, after normal business hours only Desktop Support and Hosting staff provide on-call service to O-Track and M-Track systems. Due to the very low incidence of calls requiring Software or DBA staff assistance, it was determined that we would follow our existing practice of not having Software or DBA staff on-call.

Resolution Time:

Resolution time measure DTS' efforts to resolve customer incidents within the timelines set below based upon urgent, high, medium and low priorities. These metrics will be reported each month, by agency, with a cumulative report showing DTS' efforts over several months. These reports will then be posted on the DTS Metrics web page at: <http://dts.utah.gov/metrics/index.php>.

Total Time to Resolution	Target: Percent of Tickets Meeting Priority Timelines
Low priority - 6 Business hours	90%

State of Utah

Product Description

Medium priority - 4 Business hours	90%
High priority – 3 Clock hours	90%
Critical priority - 3 Clock hours	90%

Initial Response:

Initial response measure DTS' efforts to respond to customer incidents within the timelines set below based upon urgent, high, medium and low priorities. These metrics will be reported each month by agency with a cumulative report showing DTS' efforts over several months. These reports will then be posted on the DTS Metrics web page at: <http://dts.utah.gov/metrics/index.php>.

Time to Initial Response	Target: Percent of Tickets Meeting Priority Timelines
Low priority – 1 Business hour	85%
Medium priority – 1 Business hour	85%
High priority – 1 Clock hour	90%
Critical priority – 30 Clock minutes	95%

First Contact Resolution:

First contact resolution measures DTS' efforts to resolve customer incidents on initial contact with either our help desk or a technical specialist. These metrics will be reported each month, by agency, with a cumulative report showing DTS' efforts over several months. These reports will then be posted on the DTS Metrics web page at <http://dts.utah.gov/metrics/index.php>.

Metric Description	Target
First Contact Resolution	75% of all incidents reported resolved on initial contact

Customer Satisfaction Surveys and Reporting:

All users/customers whose technical incidents are resolved by DTS staff will be given the opportunity to respond to an on-line survey regarding their level of satisfaction with the support received from DTS. Responding to the survey is voluntary.

The chart below identifies DTS enterprise goals for customer satisfaction. Cumulative monthly reports will be created displaying the customer's level of satisfaction with DTS support. These reports will then be posted on the DTS Metrics web page at <http://dts.utah.gov/metrics/index.php>.

Customer Satisfaction Target

Metric Description	Target
Average level of satisfaction with resolution efforts	≥ 4.5 on a scale of 0 - 5
Percentage of respondents expressing satisfaction (vs. dissatisfaction)	93% of respondents satisfied